

Notice of Allowability

Application No.

10/608,758

Examiner

Anjan K. Deb

Applicant(s)

PERRY, DWAYNE M.

Art Unit

2858

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to amendment filed 07/11/2007.
2. ☒ The allowed claim(s) is/are 7-10, 12 and 15-19.
3. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some* c) ☐ None of the:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
- (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
- 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
- (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO/SB/08),
Paper No./Mail Date _____
4. ☐ Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. ☐ Notice of Informal Patent Application
6. ☐ Interview Summary (PTO-413),
Paper No./Mail Date _____
7. ☒ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other _____

DETAILED ACTION

1. This office action is in response to amendment after non-final office action filed 04/11/2007.

Response to Arguments

2. Regarding rejection of independent claim 7 under 35 USC 103(a) as being unpatentable over Ito et al (US 6,216,056 B1) in view of Herring (US 6,373,262 B1), applicant has amended claim 7 by including electronics operative to convert said transducer electrical signal to a force/torque signal suitable for reception by a data acquisition system and power supply connected to said sensor housing in power and electrical signal flow relationship, the power supply operative to connect to a data acquisition system via a multi-conductor cable and further operative to transmit said force/torque signal in analog format on the multi-conductor cable. Applicant further argued that the prior art of record does not disclose this configuration of sensor housing, power supply, and data acquisition system, with the transducer electronics and calibration memory disposed either in the sensor housing or in the power supply (see REMARKS page 6 last paragraph and page 7 lines 1-3). Applicant's arguments have been considered and are persuasive.

Examiner's Amendment

3. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it MUST be submitted no later than the payment of the issue fee.

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Authorization for this examiner's amendment was given in a telephone interview with Edward H. Green, III on 8/29/2007.

The application has been amended as follows:

In claim 7, line 5 insert after "data acquisition system" -- ; --

Allowable Subject Matter

4. Claims 7-10, 12, 15-19 are allowed.

Reasons for Allowance

5. The following is an examiner's statement of reasons for allowance:

The primary reason for allowance of the claims is the inclusion of "electronics operative to convert said transducer electrical signal to a force/torque signal suitable for reception by a data acquisition system; a power supply connected to said sensor housing in power and electrical signal flow relationship, the power supply operative to connect to a data acquisition system via a multi-conductor cable and further operative to transmit said force/torque signal in analog format on the multi-conductor cable."

The above limitation in combination with remaining claims limitations is novel and is neither disclosed nor fairly suggested in the prior art considered individually or in combination.

Claims 8-10, 12, 15-19 depend from claim 7 and are allowed for the same reasons as above.

Conclusion

6. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Malkin et al. (US 2003/0194946 A1) disclosed force detection sensors comprising analog signal, calibration and data acquisition system.

Suda (US 5,573,079) disclosed housing 32 comprising force torque sensor 13 connected to power supply 34 (Fig. 1).

Hordnes et al. (US 5,445,036) disclosed torque sensor including power supply, amplifier and data acquisition system (Fig. 3).

Kawagoe (US 5,712,563) disclosed torque sensor including detection circuit and power supply (Fig. 13).

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Anjan K. Deb whose telephone number is 571-272-2228. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew H. Hirshfeld can be reached at (571) 272-2168.

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8/29/07